

# PREVENTATIVE MAINTENANCE

Proactively identifying and eliminating your machine's performance inaccuracies will dramatically prolong the life of your machine tool.

## **INSPECTION & ANALYSIS -**

A specific and detailed checklist will be complete for each machine model

Accuracy testing
Condition of level (pre & post)
Backlash report (pre & post)
Electrical components
Ball screws
Spindle oil cooler

Main spindle
Lubrication system
Tool changer
Cable carriers
Ways & wiper
Pallet changer
Axis check



Coolant system
Hydraulic system
Chip conveyor
Limit switches
All rollers
Counter weight chain
Flexible conduit

#### **PROJECT SCOPE**

- Physical overview of each machine's condition prior to preventative maintenance date (pre inspection)
- · Complete accuracy testing of machine
- Alignment problems identified during accuracy tests are corrected (upon request, additional cost)
- PM service typically takes anywhere from 8 to 16 hours per machine (these time estimates may vary depending upon the specifics of the machine)

## **ACTION PLAN**

## **PM Pre-Inspection**

A physical overview of the machine's current conditions; including a thorough pre-inspection checklist. Preceding this initial inspection, you will receive a detailed list of all components that are recommended for replacement.

# **PM Inspection**

- Machine is cleared of any debris and way covers are removed
- Accuracy testing is performed; including alignment checks of spindle and all axes
- Any faults identified during performance testing processes are corrected (backlash, axis alignment and machine level)
- Proper functionality of lubrication and oil delivery systems is confirmed (fluids will be exchanged if necessary)
- · Electrical analysis and adjustments are completed
- Previously unexposed wipers on all axes are inspected (Replacement upon request, additional cost)
- Operation of machine systems are analyzed
- Belts, pulleys, limit switches, proximity switches, pressure switches, motors, etc..
  are adjusted and wear items may be replaced where necessary
  (Replacement upon request, additional cost)

#### **Post PM Review**

- PM Checklist review with maintenance coordinator
- Results of PM are compared with previous records. This process will help to highlight any consistent issues that may directly affect machine performance. Future service recommendations will be made at this time.

## **RESULTS**

- Reduction of unscheduled downtime
- Improved geometric accuracies
- Benchmarking and maintenance records for each machine (these records will reduce the man-hours for subsequent machine PMs)

## **SCHEDULE**

All World Machinery Supply, Inc. recommends preventative maintenance be performed approximately every 6 to 12 months.

(schedule can be adjusted according to hours of service)

